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Introduction to Yellow Fever

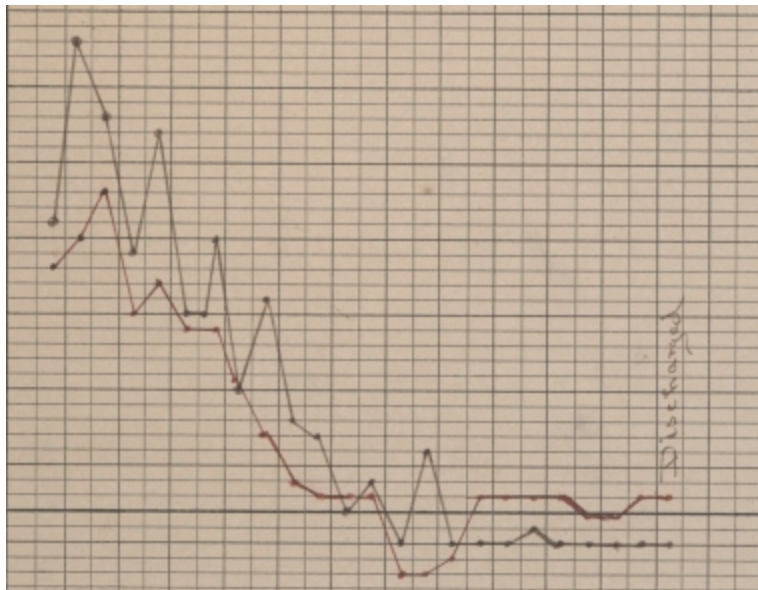
This module provides an introduction to yellow fever, including its symptoms, treatment and quarantine, and major outbreaks in the Americas.

Introduction to Yellow Fever

Yellow fever is an infectious disease transmitted to humans from monkeys through the bite of infected *Aedes aegypti* mosquitoes. This disease cannot be transmitted from person to person. Once a person contracts this virus, they have 5-25% chance of becoming ill, depending on the strength of each individual's immune system. Yellow fever was known as yellow jack, saffron scourge, sylvatic yellow fever, urban yellow fever, *vómito negro* (black vomit- *vómito prieto*), totaling more than 150 names.

Yellow Fever Patient's Clinical Chart

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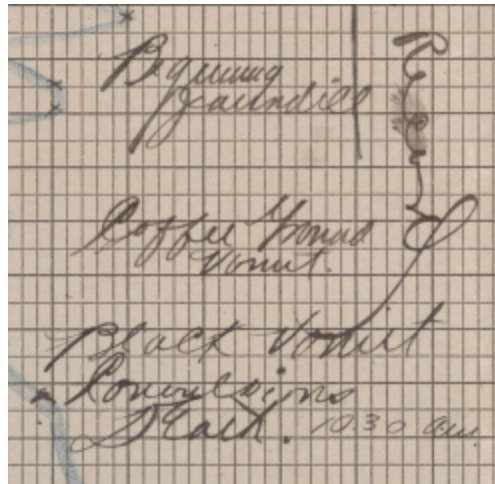
Symptoms

Yellow fever presents itself through a variety of symptoms including chills, fever, weakness, nausea, decreased urination, delirium, muscle and lower back aches, irritability, and restlessness, seizures, vomiting, and can lead to a coma. Symptoms usually occur 3-6 days after infection; the fever lasts between 3-4 days and is followed by remission and a second febrile phase,

which is the most dangerous, affecting internal organs such as liver and kidneys, causing jaundice and hemorrhages in the digestive tract. This in turn causes the yellow coloration of the skin and white of the eyes and of vomiting a black substance.

The Symptoms of a Yellow Fever Patient

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Treatment and Quarantine

During the 19th century, it was a common belief that the firing of a cannon disrupted air particles, creating large amounts of air turbulence that could destroy the unknown agent that caused yellow fever. Along with this procedure, a common treatment for yellow fever was fumigation and burning sulfur in the patients' room. This treatment actually caused patients to cough consistently and even choke because of the sulfuric fumes. Following the smoking of sulfur, the physician continued treatment by using a lancet to bleed the patient so rapidly they usually fainted. This treatment was known as "syncopal bleeding". Afterward, the patient was encouraged to take large doses of calomel, which is toxic and causes people to salivate continuously and suffer from uncontrollable diarrhea. Alongside the toxic calomel, the patients were given cinchona bark, an anti-malarial agent, which actually caused intense stomach irritation and bouts of vomiting. To reduce this harsh effect, doctors applied poultices to the skin on the abdominal area which oftentimes caused blistering of the skin (VanItallie 329). Following this harsh treatment, patients' temperature oftentimes returned to normal for a few days during remission and later rose

again during the third phase. The patients soon began suffering from jaundice and vomited a black substance resembling ground coffee. They also bled from the mouth, nose, and eyes, due to the inflammation of the liver. After this level of illness, the patient usually fell into a coma, often resulting in death. The harsh treatments were replaced with more soothing procedures towards the end of the 19th century. New remedies consisted of hot mustard foot baths, bed rest, crushed ice and lemonade, cool sponging, and gentle nursing care (VanItallie 332).

Isolated Patient

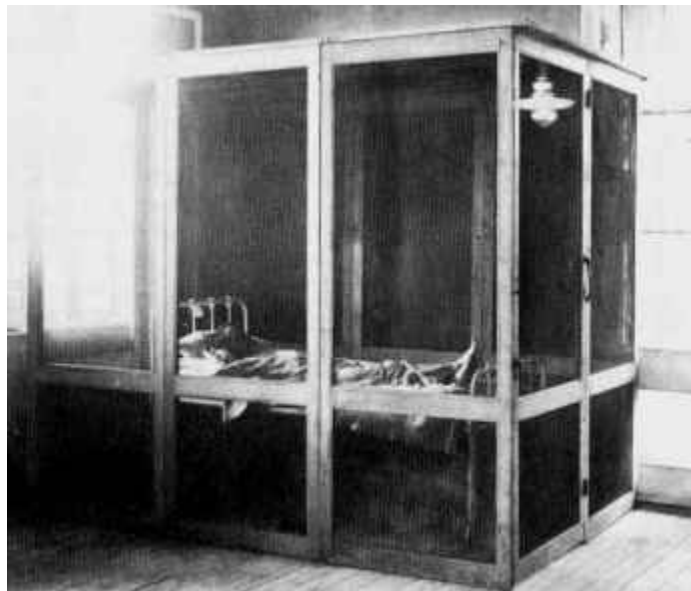
This image shows a doctor treating a yellow fever patient, the uncertainty is present in the spectators' faces.



Quarantines were very common during this time, which along with improved sewage and drainage facilities, helped keep the disease controlled. A simple rumor of the presence of the disease caused massive blockades against the infected city. Quarantine laws were also passed to prevent ships carrying infected persons or people coming from cities which had an outbreak from landing in ports that were not infected. Congress created the National Board of Health in 1879 to establish a national quarantine system.

Isolated Patient

A patient is isolated in a specially made quarantine room.



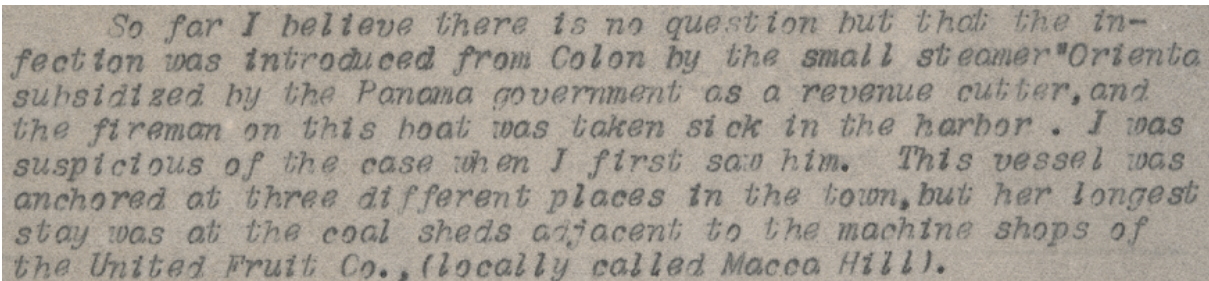
Outbreaks

There have been several major pandemics and epidemic of yellow fever throughout the world. Historical records indicate that yellow fever affected Europe after the Roman Empire collapsed. In the 1760s a pandemic outbreak in Cuba killed thousands of English and American troops. At that same time in Philadelphia, the largest outbreak in the United States was taking place, killing ten percent of the total population of Philadelphia. Napoleon also lost half of his 40,000-troop army to the disease in 1802 in Haiti. This disease took the lives of many early American settlers and also deterred the French from constructing the Panama Canal when this area suffered from an epidemic in 1904. The last epidemic of yellow fever in North America occurred in New Orleans in 1905 but this disease continues to kill an estimated 30,000 people annually in Africa and South America.

The disease was especially prominent in port cities starting as early as the 1690s. It struck at ports from Boston all the way to New Orleans and the Gulf of Mexico. Philadelphia, New York, Galveston, and Brownsville were some of the cities that were often times affected due to the appearance of mosquitoes in those areas. The disease usually destroyed between 5 to 10 percent of the population of cities which suffered from outbreaks, but this statistic increased to up to 20% mortality rate during major outbreaks.

Letter to Surgeon-General in Washington, D.C.

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So far I believe there is no question but that the infection was introduced from Colon by the small steamer "Oriente" subsidized by the Panama government as a revenue cutter, and the fireman on this boat was taken sick in the harbor. I was suspicious of the case when I first saw him. This vessel was anchored at three different places in the town, but her longest stay was at the coal sheds adjacent to the machine shops of the United Fruit Co., (locally called Macca Hill).

During the 1850s, a series of epidemics struck every city along the coast from Norfolk, Virginia all the way down to Brownsville, Texas. New Orleans, St. Augustine, and Jacksonville were some of the North American cities that were affected by yellow fever epidemics. During the 1853 New Orleans epidemic, more than 3,000 cases occurred. It lasted four months and resulted in about 1800 deaths. During this decade, New Orleans lost almost 20,000 people due to four different epidemic outbreaks. Following that time period, the incidences decreased until the reappearance of one final outbreak in 1905 in New Orleans. This was the last major outbreak, which was successfully terminated with the help of effective mosquito control (Duffy 688).

Major Outbreaks in the U.S.

This map pinpoints some of the major yellow fever epidemics in different cities in the United States



Further Reading

For access to more documents on yellow fever, search [missing_resource: <http://oaap.rice.edu/>]Kezia Payne DePelchin, Paul Osterhout, or the different variations of yellow fever (such as *vómito*) mentioned earlier.

Sources

Duffy, John. "Yellow Fever in the Continental United States during the Nineteenth Century." *Bulletin of the New York Academy of Medicine* (1968) 44.6: 687-701. Print. 11 Mar. 2010.

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El vómito negro: Una introducción

Este módulo sirve como introducción al vómito negro (fiebre amarilla), incluyendo sus síntomas, tratamiento (siglo XIX), cuarentena y brotes graves en las Américas. Es una traducción del siguiente módulo: Lorena Villarreal, "Introduction to Yellow Fever," Connexions, May 31, 2011, <http://cnx.org/content/m34414/1.9/>.

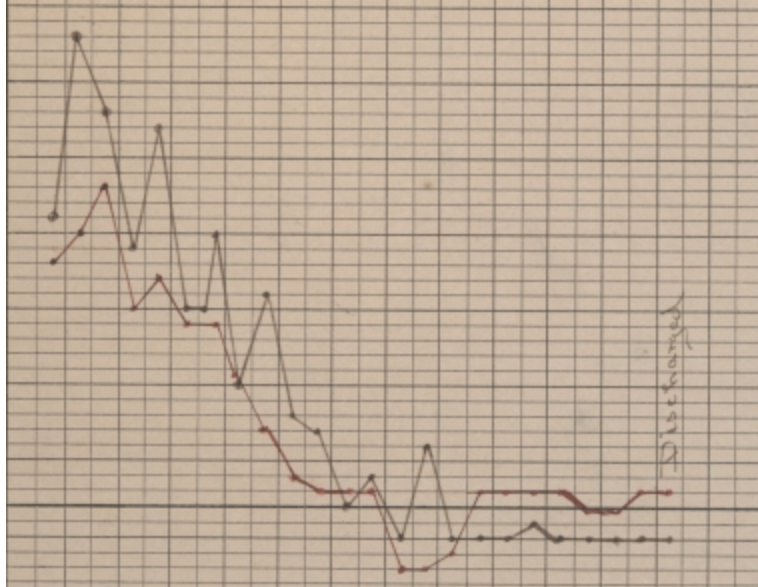
El vómito negro (fiebre amarilla): Una introducción

Este módulo es una traducción de: Lorena Villarreal, "Introduction to Yellow Fever," Connexions, May 31, 2011, [missing_resource: <http://cnx.org/content/m34414/1.9/>]

El vómito negro es una enfermedad contagiosa que se transmite de monos a humanos por la picadura del zancudo *Aedes aegypti* infectado. Esta enfermedad no se puede transmitir de persona a persona. Una vez que la persona contrae este virus, tienen un 5-25% probabilidad de enfermarse, dependiendo de su sistema inmunológico individual. El vómito negro también fue conocido como el vómito prieto, la fiebre amarilla, el vómito, la Plaga Americana, *yellow fever*, etc. con un total de más de 150 nombres (en inglés y en español).

Hoja médica de un paciente con el vómito negro

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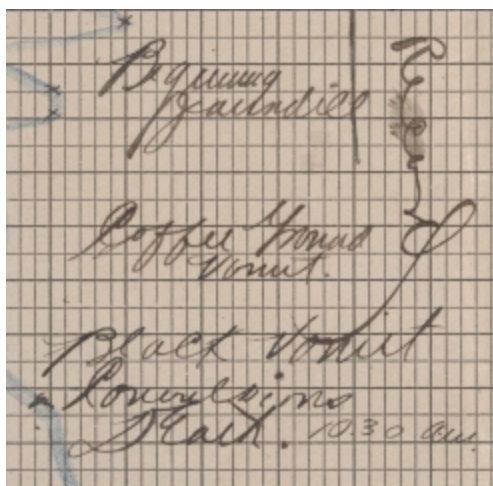


Síntomas

El vómito negro se presenta a través de varios síntomas, incluyendo: escalofríos, calentura, náusea, menos orina, delirio, dolores musculares y dolores de espalda, irritabilidad e inquietud, ataques cerebrales, vómito, y hasta se puede caer en coma. Por lo general, los síntomas ocurren 3-6 días después del contagio; la fiebre dura entre 3-4 días y se sigue por remisión y una fase secundaria de fiebre, que es más peligrosa porque afecta los órganos internos, como el hígado y los riñones, causando ictericia y hemorragias en el tracto digestivo. Esto, a su vez, causa el tinte amarillo de la piel y los ojos y el vómito de una sustancia negra.

Síntomas de un paciente

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Tratamiento y cuarentena

Durante el siglo XIX, era una creencia común que al disparar un cañón se alteraban las partículas de aire, creando grandes cantidades de turbulencia de aire que podrían destruir al agente desconocido que causaba el vómito negro. Junto con este procedimiento, un tratamiento común para el vómito negro era fumigar y quemar sobre el cuarto del paciente. Después de quemar el sufre, el médico continuaba el tratamiento, usando una lanceta para desangrar al paciente tan rápido que generalmente se desmayaban. Después, al paciente se le daba una dosis alta de calomelanos, un compuesto tóxico que causa un exceso continuo de saliva en el paciente y diarrea incontrolable. Además de los calomelanos tóxicos, se les daba cortezas de cinchona a los pacientes, un agente anti-malaria, que causaba vómito e irritación intensa del estómago. Para reducir este efecto violento, los médicos aplicaban cataplasmas en la piel del área abdominal, que generalmente causaba ampollas (VanItallie 329). Después de este tratamiento violento, la temperatura del paciente regresaba a normal por pocos días durante la remisión y después subía de nuevo durante la tercera fase. Luego, los pacientes empezaban a padecer ictericia y vomitaban una sustancia negra que se parecía a posos de café. También sangraban de la boca, nariz y ojos, a causa de una inflamación del hígado. Después de este nivel de la enfermedad, el paciente casi siempre caía en coma, resultando en la muerte. Los tratamientos violentos fueron reemplazados por procedimientos más moderados hacia los finales del siglo XIX. Remedios nuevos incluían baños de mostaza caliente de los pies, repaso en cama,

hielo picado y limonada, gorroneo con agua fresca, y un cuidado moderado (VanItallie 332).

Paciente aislado

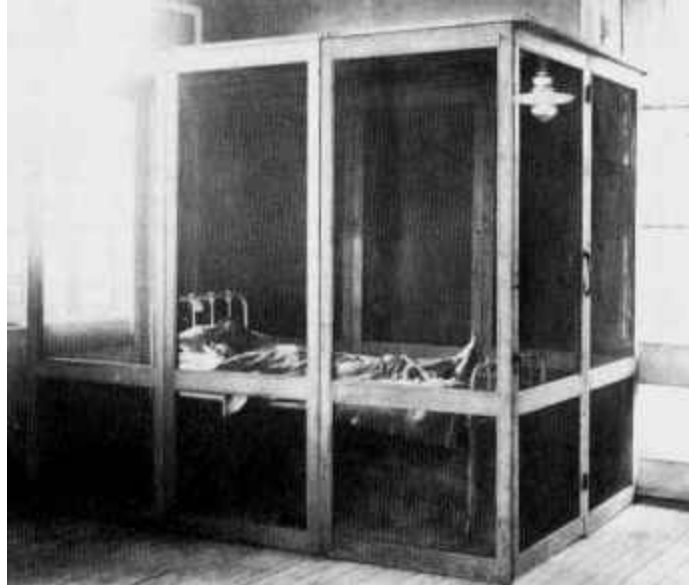
Esta imagen muestra un doctor con un paciente con vómito negro, la incertidumbre se manifiesta a través de las caras de los espectadores.



Las cuarentenas eran muy comunes en ese tiempo y, junto con mejores sistemas de alcantarillado y desagüe, ayudaron a controlar la enfermedad. Un rumor sencillo de la presencia de la enfermedad resultaba en bloqueos masivos de la ciudad contagiada. Leyes de cuarentena fueron aprobadas que prevenía que barcos llevando gente contagiada o gente de ciudades con brotes desembarcaran en puertos no infectados. El Congreso estadounidense creó el consejo nacional de la salud, *National Board of Health*, en 1879 para establecer un sistema nacional de cuarentena.

Paciente aislado

Un paciente aislado en un cuarto especial de cuarentena.



Brotes

Ha habido varios brotes grandes de vómito negro en el mundo. Expedientes históricos indican que el vómito negro afectó a Europa después de la caída del Imperio romano. En 1760, un brote en Cuba mató a miles de tropas inglesas y americanas. Al mismo tiempo, el brote más grande de los EEUU ocurrió en Filadelfia y mató a diez por ciento de la población de esta ciudad. Napoleón perdió la mitad de su fuerza armada, compuesta de 40,000 tropas, a causa de la enfermedad en 1802 en Haití. Muchos pioneros estadounidenses tempranos murieron a causa de esta enfermedad. Y los franceses decidieron no construir el canal de Panamá durante el brote de 1904 en el área. El último brote de vómito negro en América del norte ocurrió en Nueva Orleans en 1905, pero la enfermedad sigue matando a aproximadamente 30,000 personas por año en África y América del sur.

La enfermedad fue especialmente prominente en puertos desde los años 1690. Brotes ocurrieron desde Boston a Nueva Orleans y el Golfo de México. Filadelfia, Nueva York, Galveston, y Brownsville eran algunas ciudades que fueron afectadas a causa de los zancudos en el área. Generalmente, la enfermedad destruía entre 5 a 10 por ciento de la población de las ciudades con brotes, pero esta estadística subió a un índice de mortalidad de 20% durante brotes significantes.

Brote en Veracruz, México

“ por no ser ellos.... Redactor municipal de ...
“ Tenemos noticia de que este año se ha desplegado ya con bastante fu-
“ rer el llamado *vomito prieto* en la ciudad de Veracruz. Esta cruel y mor-
“ tífera enfermedad sacrifica todos los años millares de víctimas, y disminuye
“ considerablemente nuestras guarniciones militares de aquella plaza... El Sol
“ de 21 de marzo. ... (1) ... ligridada hasta ahora sube á

Durante los años 1850, una serie de brotes ocurrió en todas las ciudades a lo largo de la costa, desde Norfolk, Virginia hasta Brownsville, Texas. Nueva Orleans, St. Augustine y Jacksonville eran algunas de las ciudades Norteamericanas que fueron afectadas por los brotes del vómito negro. Durante la epidemia de 1853 en Nueva Orleans, ocurrieron más de 3,000 casos. Duró cuatro meses y resultó en aproximadamente 1800 muertes. Durante esta década, Nueva Orleans perdió casi 20,000 personas por causa de cuatro brotes diferentes. Después de este periodo, los incidentes bajaron hasta la reaparición de un brote final en 1905 en Nueva Orleans. Este era el último brote significativo, que fue controlado con la ayuda de control efectivo de los zancudos. (Duffy 688).

Brotes graves en los EEUU

Brotes significantes en los EEUU



Lectura complementaria

Para leer más sobre el vómito negro, haz clic en los enlaces suplementarios a la derecha o visita: [missing_resource: <http://oaap.rice.edu/>]**vómito negro** (e.j. vómito, vómito prieto, fiebre amarilla, *yellow fever*). Nombres claves que se pueden buscar incluyen: Kezia Payne DePelchin y Paul Osterhout.

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A Global View of Disease: Yellow Fever and the Panama Canal
Using George Dunham's travel diary and Paul Osterhout's personal papers, this module investigates the connections between yellow fever, Panama, and U.S. international policy.

A Global View of Disease: Yellow Fever and the Panama Canal

The idea of an interoceanic canal in Central America had captivated the leaders of Britain, the United States, and France since the early nineteenth century. A canal in Central America would allow ships from these world powers to quickly and efficiently transport goods and peoples to Asia and beyond. Despite these incentives, building a canal would prove difficult and costly, in terms of lives lost and money spent. In 1881 Ferdinand Marie de Lesseps, representing the French in Panama, began work on his grand canal. Only eight years later de Lesseps was forced to admit defeat due, in great part, to the thousands of lives that were lost throughout the construction process of the still unfinished canal. It has been estimated that 60 percent of the Frenchmen who labored on the canal died in the process (Sánchez 48). Many of these deaths resulted from diseases (yellow fever, malaria, bubonic plague, pneumonia), however this percentage also reflects accidental deaths as well. It would take the intervention of the United States, and a few more years, before a functioning canal was completed in Panama. The United States, in a similar fashion as France, would have to deal with the deadly disease environment of Central America, including the prevalence of yellow fever. The personal letters and medical documents of Paul Osterhout, a visiting U.S. official in Panama, as well as the [missing_resource: <http://hdl.handle.net/1911/9247>][missing_resource: <http://oaap.rice.edu/>]

The French in Panama

This image (ca. 1910-1914) shows abandoned machinery from the French attempt to build a canal in Panama.



Used in conjunction with a partner module on yellow fever,
[missing_resource: <http://cnx.org/content/m32888/latest/>]*Seaway to the
Future* (2008).
Construction

A photo (ca. 1906) showing men laboring on the canal. Many of these individuals were probably West Indian laborers who migrated for the work opportunity.



Map of the Panama Canal

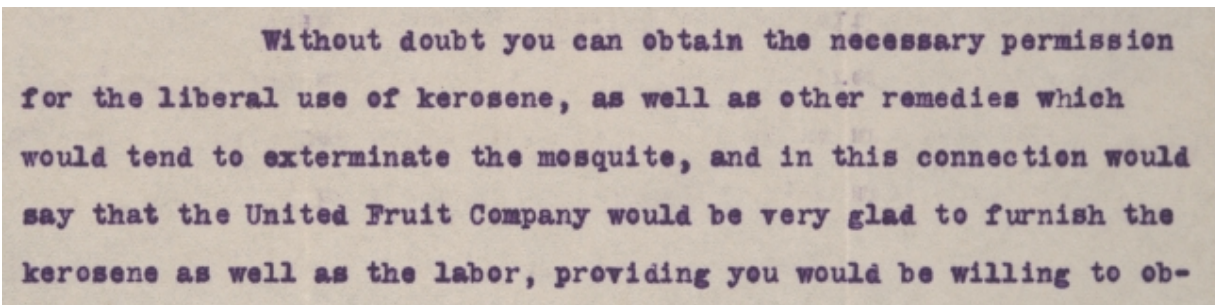
[illegible]

These media sources will convey the fact that the Canal was situated in prime mosquito territory amid miles of swamp and jungle. To keep the project functioning on schedule, Roosevelt brought in William C. Gorgas as the chief sanitary officer in charge of combating yellow fever and other diseases. One exercise would involve educators asking students how they would combat the illness if they were in Gorgas's position. Osterhout's letters provide some indications of how the medical community responded to the challenge. To begin with, they attempted to document all aspects of the disease. This is evident via Osterhout's Clinical Charts for individuals such as [missing_resource: <http://hdl.handle.net/1911/27336>] [missing_resource: <http://hdl.handle.net/1911/27342>][missing_resource:

<http://hdl.handle.net/1911/26577>][missing_resource:
<http://hdl.handle.net/1911/27351>]

S. G. Schermerhorn to Paul D. Osterhout

This is an excerpt from a [missing_resource:
<http://hdl.handle.net/1911/22005>]



Without doubt you can obtain the necessary permission for the liberal use of kerosene, as well as other remedies which would tend to exterminate the mosquito, and in this connection would say that the United Fruit Company would be very glad to furnish the kerosene as well as the labor, providing you would be willing to ob-

However, yellow fever was not simply a disease found in ‘uncultivated’ swamplands. In actuality, the fever had been impacting the U.S. and other American locales for quite some time. For example, George Dunham, in his travel journal, documents Brazil’s struggle with yellow fever in the 1850s. Dunham tried to nurse numerous individuals through the disease, even stating in reference to his friend, “I shall take care of him for as long as I can for I have been with him all the time so far and now I think there is no use in trying to run away from it I shall be as careful as I can of myself and try to escape” (Wed. May 25, 1853). Dunham repeatedly emphasized his feelings of helplessness in the face of the fever, a sentiment echoed in other infected locales across the globe. An activity could ask students to analyze the impact of the fever across the globe, using the [missing_resource:

<http://oaap.rice.edu/>][missing_resource:
<http://cnx.org/content/m32888/latest/>][missing_resource:
<http://cnx.org/content/m19517/latest/>][missing_resource:
<http://cnx.org/content/m19518/latest/>]

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Environmental History in the Classroom: Yellow Fever as a Case Study
Nurse Kezia Payne DePelchin survived numerous yellow fever epidemics and this module suggests ways to teach her writings in the classroom.

Environmental History in the Classroom: Yellow Fever as a Case Study

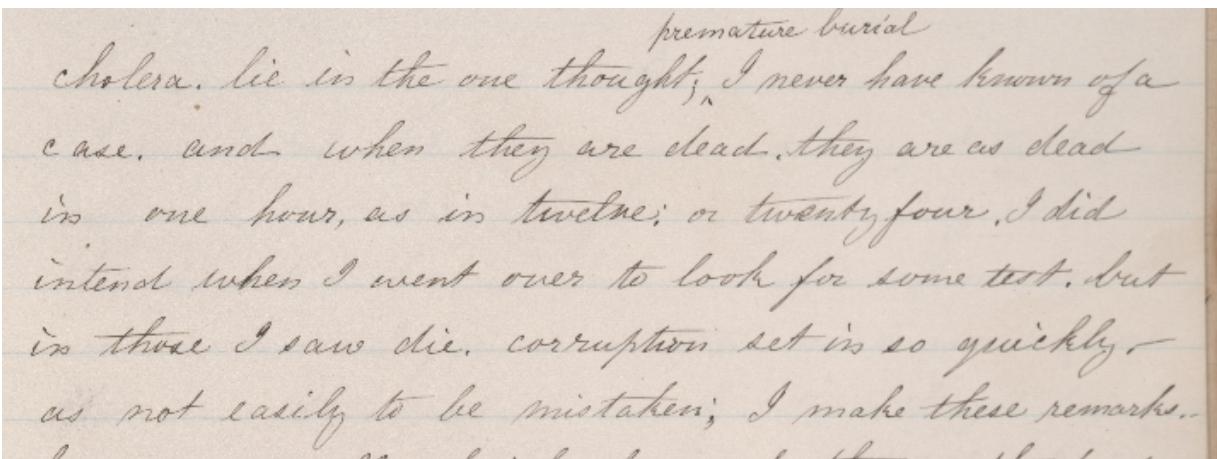
In early twentieth-century Cuba, the U.S. Army Yellow Fever Commission, led by Walter Reed, discovered that mosquitoes were responsible for the spread of yellow fever across the globe. Prior to Reed's findings, people had lived in fear of a disease that appeared to strike with no warning or logic. Yellow fever, characterized by a high fever, black vomit, and skin yellowing, often proved fatal. In the 1790s numerous cities in the U.S. were crippled by the fever and the epidemics returned at regular intervals until 1905, "the last American yellow fever epidemic" (Hays, 265). In two letters to her sister ([missing_resource: <http://hdl.handle.net/1911/26579>] [missing_resource: <http://hdl.handle.net/1911/27123>] [missing_resource: <http://hdl.handle.net/1911/27114>] *Telegram*, nurse Kezia Payne DePelchin describes the yellow fever outbreak of 1878-1879 that spread across Mississippi, Tennessee, and Louisiana, leading to the deaths of an estimated 4,100 people in Mississippi alone (Nuwer, 126). These three documents are physically housed in Rice University's Woodson Research Center, but are made available online through the [missing_resource: <http://oaap.rice.edu/>]

Just as social history, an outgrowth of the 1970s, is now considered a commonplace part of college and high school history textbooks, environmental history, one of the newest and most engaging forms of historical inquiry, is gradually being incorporated in the classroom. Environmental historians use primary documents to explore how the environment (insects, natural disasters, diseases, etc.) impacts and shapes human history in a variety of ways. For an example of a good, recent environmental history see Matthew Mulcahy's *Hurricanes and Society* (2006) (see full biographical details below). To begin with, educators can emphasize how, although she did not realize it at the time, DePelchin, through her letters, constructed an environmental history of the 1878-1879 yellow fever outbreak. She traced the characteristics of the illness, accounted for the "collection" of the victims, and wondered why citizens so

quickly began to “dance over the ashes” of the dead. DePelchin eventually returned back to Texas, but she wrote to her sister that “the remembrance of the awful scenes of the great epidemic have cast a shadow on my heart that will never pass away.” A single lecture can focus on DePelchin or environmental history can serve as a theme carried throughout the entire course.

Excerpt from a letter, Kezia Payne DePelchin to her sister, January 27, 1879

In this excerpt, DePelchin discusses the possibility that some people ill with yellow fever may have experienced "premature burial," otherwise known as being buried alive.



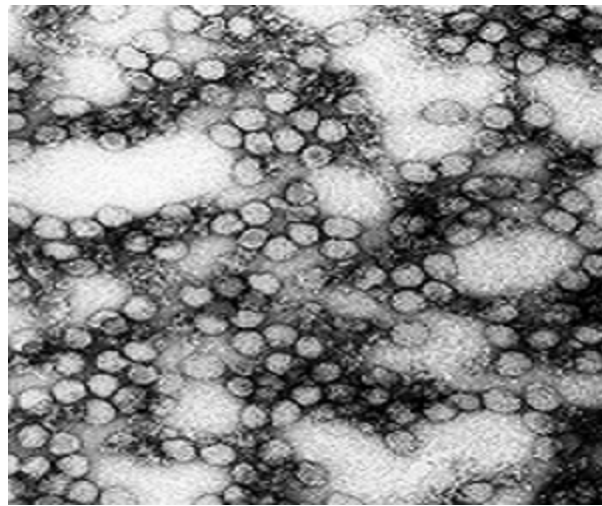
cholera. lie in the one thought, ^{premature burial} I never have known of a case, and when they are dead, they are as dead in one hour, as in twelve; or twenty four. I did intend when I went over to look for some test, but in those I saw die, corruption set in so quickly, as not easily to be mistaken; I make these remarks.

Educators would probably get the most benefit from introducing DePelchin’s letters during a discussion of 1870s America, a section that appears under the title of “Growth as an Economic Power” in many U.S. History textbooks. In addition, the 1870s is known by historians as a period marked by city development and scientific innovation. City boosters lauded the benefits of their individual cities in order to gain revenue, while innovators such as Alexander Graham Bell and Thomas Edison invented the telephone and phonograph, respectively. This connects to the DePelchin letters because science had yet to solve the mystery of yellow fever and the letters describe in detail the successes and failures of the various curative methods attempted by nurses and doctors. To trace the evolution of medical approaches to yellow fever, and to put the 1878-1879 epidemic in perspective, educators can assign sections or particular chapters from J. N. Hays’s *Epidemics and Pandemics: Their Impacts on Human History*

(2005). Then, a discussion can take place focusing on how treatments for yellow fever changed over time. Students can also be asked to bring in articles on modern diseases, such as SARS, and to connect how our present-day search for answers parallels that of the past. If the class is large and additional illness essays are needed, educators can reference Michael Oldstone's *Viruses, Plagues, and History* (1998).

Yellow Fever

Yellow fever as it appears under a microscope.



It is also interesting to note how civic organizations, one way that we prevent and treat illness in the present day, were only starting to develop in the 1870s. DePelchin was drawn in to help as a nurse with the assistance of a larger medical group, but very few cities across the South had created medical or health boards. For a strong elucidation of this argument useful for educators hoping to emphasize the civic development of the South, see *Plague Among the Magnolias* (2009) where Deanne Stephens Nuwer traces the “expanded role played by charities and local government agencies” during the 1878 outbreak (xi). The concentration of resources made possible by the growth of cities allowed for these advances, but epidemics in cities also created unique problems. Students can be asked to identify how city life could exacerbate already deadly disease conditions. For example, students can investigate the city-based similarities between the 1793 Philadelphia outbreak (see J.H. Powell's *Bring Out Your Dead* (1949))

and the 1853 New Orleans outbreak (see John Duffy's *Sword of Pestilence* (1966)).

Charity at War with Yellow Fever

The image states, "Children in St. Vincent's Infant Asylum, New Orleans, Attended by Sisters of Charity."



While comparing city environments is important, this module would be remiss if it did not mention the possibilities inherent in making a global comparison of yellow fever outbreaks. Caribbean historians have been innovators in environmental history and their efforts have produced a substantial number of worthy resources. Richard Sheridan's *Doctors and Slaves* (1985) represents one of the more substantial works and it can facilitate a comparison of U.S./West Indies medical cultures, as evident via the treatment of a variety of illnesses, including yellow fever.

On a final note, yellow fever provides educators a rare opportunity to convey an intangible aspect of history to students, the way that people in the past experienced and felt fear. It is often difficult to explain in a classroom how people decades or centuries ago were motivated by fear in ways similar to, and different from, people today. For example, fear led to flight being the most commonly chosen method of avoiding yellow fever, as

evidenced by DePelchin's writings. Visuals can help convey the influence of emotions on human history. In particular, PBS has an informative and dynamic one-hour film entitled, [missing_resource: <http://www.pbs.org/wgbh/amex/fever/index.html>]

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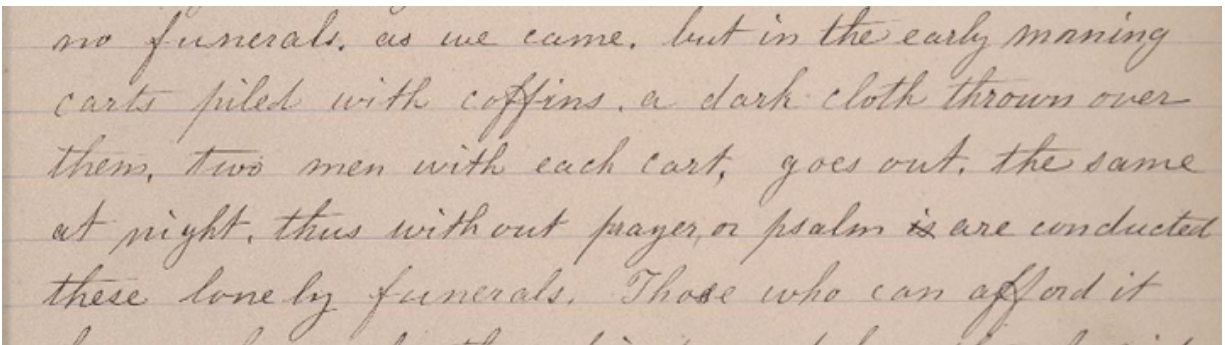
Kezia Payne De Pelchin's Remarkable Journey

This module provides biographical background on Kezia Payne De Pelchin, a nurse during the US yellow fever outbreaks.

Kezia Payne De Pelchin's Remarkable Journey

“...In the early morning, carts piled with coffins, a dark cloth thrown over them, two men with each cart goes out, the same at night. Thus without prayer or psalm are conducted these lonely funerals.” – [missing_resource: <http://hdl.handle.net/1911/27294>]

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Even after 130 years, this description evokes the despair of desperate times, but also reveals the compassion of the writer, Kezia Payne De Pelchin. What brought De Pelchin to Tennessee to serve as a nurse during the yellow fever epidemic of 1878? Kezia, always serious-minded, always putting the needs of others above her own, once remarked that she never really had a childhood: “...when I look back over my life, it seems to me I must have been like Adam and Eve, born grown up.” ([missing_resource: <http://hdl.handle.net/1911/27241>])

Kezia's father, Abraham Payne, had traveled from England to Madeira to pursue the wine-production business. After the death of his wife, her father re-married, only to see his second wife, Kezia's mother, also die. Her father sent the children and their governess (who later became his third wife) to

America, settling them in Galveston, Texas, and eventually joining them there. When yellow fever struck Galveston, Kezia's brother and sister, and later her father, died. Kezia, her step-mother, and her sister then traveled to Houston.

In Houston, young Kezia met many immigrants from foreign countries, and witnessed Houston's rapid growth. She became very active in her church, which embraced several denominations without regard to doctrinal differences.

Her only education was instruction from her step-mother (who was her former governess) in basic reading and mathematics, and in German, French, Latin, and piano. As a teenager, Kezia tutored and gave piano lessons. She and her step-mother also worked among the sick and destitute, because their own struggles had instilled a deep empathy for others.

Portrait of Kezia Payne De Pelchin



Kezia's friends considered her odd because she associated with the lower social classes. However, she was unconcerned with social stigmas, and

instead tried to address the full spectrum of needs of the people she sought to help. At the time, Houston had no social work or relief organizations.

Houston's sanitation at the time was crude. Waste and sewage accumulated in backyards, and in the gutters of the unpaved streets. Like many Southern cities, Houston suffered yellow fever epidemics every few years. Kezia's ability, leadership and resourcefulness during epidemics were well-recognized.

During the Civil War, Houston was a depot for supplies for the Confederate army. Many residents sheltered recovering soldiers or refugees. Kezia joined a nursing corps, caring for wounded soldiers, while also helping homeless children reunite with relatives or find new homes.

A virulent yellow fever epidemic struck the Southern states in 1878. Newspaper reports spurred Kezia to volunteer as a nurse in Mississippi and Tennessee. She cared for the sick without regard to their social status, performing menial, but necessary tasks, such as disinfecting her patients' homes. She explained, "...to preserve our dignity, others may have died..." ([missing_resource: <http://hdl.handle.net/1911/26588>])

By October 1878, the fever had declined in Memphis. When she returned to Houston, Kezia carefully recorded her experiences and ideas concerning yellow fever's causes and remedies. She read books about the disease, and collected newspaper clippings regarding the epidemic. In that era, nursing was not professionalized; it was considered barely better than domestic service.

Kezia traveled to Madeira to care for her sister until Sarah's death. She returned to Houston to become the head nurse of the Stuart and Boyles Infirmary, and later the head matron of Bayland Orphan's Home. In Spring 1892, three homeless children, too young for Bayland's care, were brought to Kezia. She persuaded a friend to house them temporarily. This arrangement was made permanent, and later, a house was rented in the 2500 block of Washington Avenue. Kezia named it Faith Home, as she said she was completely dependent on her faith in God and in the people of Houston to support it.

Photograph of the De Pelchin Faith Home



Kezia died on January 13, 1893 at the age of 64, and was buried in the Episcopal Cemetery in Houston. Days after her death, 100 Houston women organized to maintain and expand Kezia's Faith Home. Today, the DePelchin Children's Center assists 23,000 children and families annually through 30 programs, including adoption, foster care, counseling and drug and alcohol prevention, at over 60 locations in Harris, Montgomery, Brazoria, Galveston, Fort Bend, and Waller counties in Texas.

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Further Reading

To read some of Kezia Payne DePelchin's letters, please visit the [missing_resource: <http://oaap.rice.edu/>]*Kezia Payne DePelchin*.

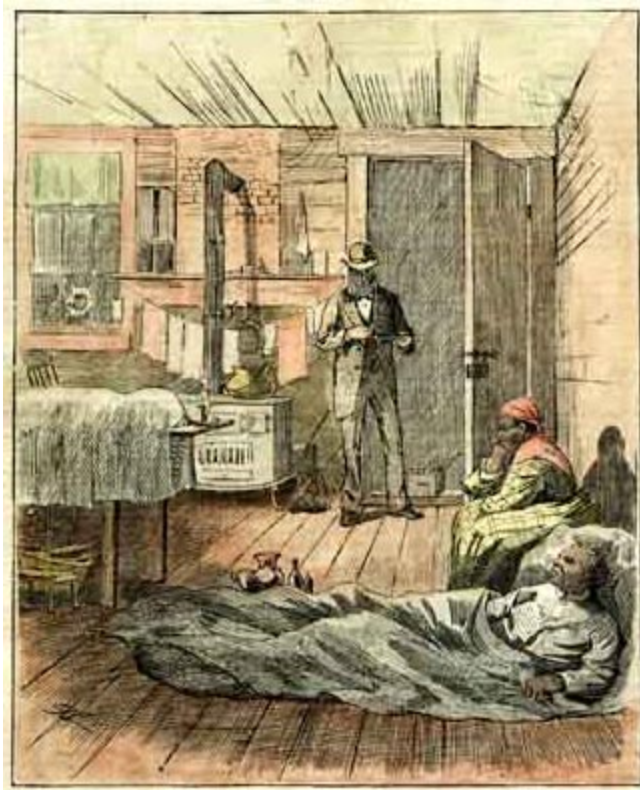
Timeline: Kezia Payne DePelchin

This module provides a biographical timeline for Kezia Payne DePelchin.

DePelchin Timeline

Originally of English descent with roots in Madeira, Portugal, Kezia Payne DePelchin was a pioneering nurse, teacher, and social worker based in Houston, Texas during the 1850's to 1890's. The [missing_resource: <http://oaap.rice.edu/>][missing_resource: <http://hdl.handle.net/1911/27251>]

A Howard Association physician on his rounds during the Memphis yellow fever epidemic.



1781	Abraham Payne, Kezia's father, born in Thetford, Norfolk, England.
(unknown)	<div>Abraham Payne marries "Hanna" in England. Kezia's half-siblings Abraham and Catherine are born.</div> <div>Family moves to Funchal, Madeira, Portugal. Abraham enters the wine business.</div>
1824	Hanna dies in childbirth on Madeira. The daughter born, Hepziah, dies as an infant.
1825	May 14: Abraham Payne marries Kezia's mother, a widow named Catherine Armstrong Cartwright, a resident of Funchal, native of England.
1828	July 23: Kezia born in Funchal, Madeira.
(unknown)	Kezia's siblings Frances, Sarah, and Benjamin are born.
1833	<div>September 26: Catherine Armstrong Cartwright Payne dies.</div>

	<div> November 23: Kezia's brother Abraham dies. </div>
1835	<div> September: Kezia, her siblings, and their governess, Hannah Bainton (an Englishwoman) leave Madiera for America on the ship <i>Chili</i>. Abraham stays behind to settle his business affairs. </div> <div> Adolph DePelchin, Kezia's future husband, is born in Ostend, Belgium. </div>
1836	December 12: Kezia and her family arrive in New York.
1837	January: Kezia and family arrive in Galveston, Texas.
1839	<div> Spring: Abraham Payne arrives in Galveston, and marries Hannah Bainton. </div> <div> September: A yellow fever epidemic strikes Galveston, soon spreading to Houston, Texas. </div>

	<p>One-fourth of the population of Galveston dies, as does 240 of Houston's 2,000 inhabitants.</p> <p>Kezia and her family contract yellow fever. Kezia survives, but her brother Benjamin and sister Catherine die.</p>
1840	<p>June 11: Kezia's father, Abraham Payne dies in Galveston of complications from yellow fever.</p> <p>March 12: Kezia's sister Sarah returns to Funchal to marry her cousin John Payne, who came to Funchal to take over Abraham Payne's wine business.</p>
1841	<p>Late summer: Kezia arrives in Houston accompanied by her widowed step-mother.</p>
1850	<p>Spring: Kezia and her stepmother move to Bastrop, Texas to operate a school. They return to Houston a year later.</p>
1853	<p>During a yellow fever epidemic in New Orleans, the Howard Relief Association is organized in that city.</p>
1860	<p>January 21: Kezia's sister Frances dies on Madiera.</p>

1862	August 23: Kezia marries Belgian itinerant musician Adolph DePelchin. No children of the marriage. They part soon after due to his financial recklessness, though they never divorce.
(unknown)	During the Civil War, Kezia joins a nursing corps in Houston.
1867	January 15: Early plans for Bayland Orphan's Home are begun.
1870	November 9: Kezia's step-mother, Hannah Bainton Payne dies.
1877	October 2: The Houston public school system is established. Kezia teaches fourth and fifth grades.
1878	<div> <p>August 29: Kezia leaves Houston to serve as a nurse in the yellow fever epidemics in Memphis and Granada, Tennessee, working in Memphis alongside other healthworkers of the Howard Relief Association.</p> <p>October 14: Kezia leaves Memphis to work as a nurse in the epidemic in Senatobia, Mississippi. Not long afterward, the epidemic ends.</p> <p>November 23: Kezia returns to Memphis, leaving for Houston, Texas with a stop in Sewanee, Tennessee.</p> </div>

1879	April: Kezia teaches private school in her home in Houston.
1880	Kezia's sister Sarah's husband John dies, on Madeira, and Sarah becomes paralyzed.
1881	<div> <p>July: Kezia leaves for Madeira to care for her sister Sarah, stopping on the way to visit friends and former patients in New Orleans, New York, Washington, DC, Philadelphia, and New Jersey, and then stops in England and Scotland to visit her niece Mary Payne, and nephews David and George.</p> <p>August 4: Kezia lands at Madeira.</p> </div>
1882	May 21: Kezia's sister Sarah dies in Funchal, Madeira.
1883	<div> <p>January: Kezia arrives back in Houston</p> <p>December: Kezia becomes head nurse at</p> </div>

	<div>Stuart and Boyles Infirmary, formerly Charity Hospital, which cares for the indigent ill.</div>
1887	<div> <div>Early March: Kezia leaves the Infirmary.</div> <div>Bayland Orphan's Home for Boys moves from Tabbs Bay to Houston.</div> </div>
1888	July 1: Kezia becomes the first woman matron of Bayland Orphans' Home.
1891	March 27: Kezia's husband Adolph de Pelchin dies in New Orleans.
1892	<div> <div>Spring: Three homeless young children are brought to Kezia, who cares for them in a friend's home.</div> <div>May 2: Kezia establishes Faith Home in a rented house in the 2500 block of Washington Avenue in Houston.</div> </div>

1893

January 13: Kezia Payne De Pelchin dies in Houston and is buried in the Episcopal Cemetery.

January 20: One hundred Houston women organize the DePelchin Faith Home to honor DePelchin after her death.

Fragment of [missing_resource: <http://hdl.handle.net/1911/27305>]

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Senatobia Nov 9, 1878.

My dear Sister,

When I write the date of this letter, what sad memories it brings. eight years ago today mother died. then was I left alone. to me the world was empty; and perhaps in looking back to that time, has made me more sympathetic with Mrs Dickey; You, never saw her after

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Further Reading

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